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Inverse Problems and Imaging

On the finite element method for electrical impedance tomography

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Abstract: Electrical impedance tomography aims at recovering the conductivity distribution from the measured voltage on the boundary. In practice, this is often achieved by some regularization technique and implemented with the piecewise linear finite element method. Hence, a natural question is about the convergence of the finite element discretization. In this talk, I will discuss the convergence issues for both quasi-uniform and adaptive discretizations.